Annual statement of progress 2017 for the critically ill
Overview

Caring for the critically ill underpins emergency and elective work in all acute hospitals in Wales. It provides specialist support for patients with life-threatening injuries and illnesses. Often critical care is needed when one or more organs have failed. This may be, for example, the lungs, kidneys, heart or liver. There are several reasons why organs might fail. Some of the most common include:

- A serious accident – such as a road accident or a severe head injury
- A serious acute (short-term) health condition – such as a heart attack
- A serious infection – such as a severe case of pneumonia (inflammation of the lungs) or peritonitis (inflammation of the abdominal lining)
- After major surgery.

Critical care units provide critical care (treatment and monitoring) for people in a critically ill or unstable condition. A patient in a critical care unit needs constant medical and nursing attention and support. They may be unable to breathe unsupported and have multiple organ failure. Medical equipment supports these functions while the person recovers.

The delivery plan for the critically ill was refreshed in February 2017 and re-affirms the Welsh Government’s commitment to ensuring everyone who is critically ill has access to timely, effective and safe services.

The challenge

Critical care beds are a very expensive and limited resource because they provide access to specialised equipment and highly trained staff. According to the all Wales Consolidated Welsh Costing Return:\n
- A ward bed cost an average of £413 per night
- A level 2 high dependency bed cost an average £857 per night
- A level 3 intensive care bed cost an average £1,932 per night.

As the population ages, social and community care in Wales is facing its own challenges which make flow through our hospitals more difficult. The effect of this is felt strongly in critical care and the ability of hospitals to maintain throughput sometimes means critical care beds are not always used appropriately. For example, some patients may remain in critical care beds for longer than they require the level of care but they are awaiting discharge to wards. This has an impact on other patients. For example it may result in cancelled operations or patients who require critical care being transferred to other hospitals. There may also be patients who would benefit from being cared for in critical care but can not be treated there as there is not enough capacity.

\[\text{WRCNI 2011-12:}\]
Patients requiring critical care are relatively low in number (around 9,500 per annum) but, when critical care is required, access needs to be timely and often rapid.

NHS Wales has a lower number of critical care beds for the size of the population than the rest of the UK. It is therefore all the more important that they are used to maximum efficiency and effectiveness by minimising avoidable or unnecessary admissions and ensuring timely discharge.

For 2017-18 the critically ill implementation group has agreed the following national priorities:

- Delivering appropriate, effective ward based care - Patients and clinicians to discuss and agree appropriateness of critical care and level of escalation of care in time of need.
- Timely Admissions to Critical Care – Patients to have timely access to (where appropriate for their condition and needs) and discharge from critical care.
- Effective critical care provision and utilisation – Patients to be cared for in the correct facility with highly qualified specialists. Patients and carers to be as involved in their care as they feel appropriate. Patients to receive care that is clinically effective.
- Timely Discharge from Critical Care – no more than 5% of all discharges back to the wards are to be delayed over 4 hours.
- Improving information and Research

**Key achievements**

- **Survival rates are improving**

  The number of patients transferring back to the ward after admittance to critical care continues to increase. In 2016-17, 84% (7,783) of patients were discharged alive, increasing from 79% (7,075) in 2011-12.

- **Readmissions to critical care within 48 hours has fallen**

  Over the last 10 years the number of readmissions within 48 hours of discharge from a critical care unit has fallen by 58%. In 2016-17 less than 1% of patients (87 out of 9,280) were readmitted within 48 hours of discharge. This highlights that ward based care and the discharge process are effective.

- **Reduction in the number of premature discharges**

  Pressures on beds and high demand levels can lead to patients being discharged prematurely. The number of premature discharges has fallen by 58% since 2010-11. In 2016-17 there were 122 premature discharges, just 1.3% of all admissions, compared with 291 premature discharges in 2010-11.
• **Reduction in non clinical transfers**

Occasionally where a lack of beds or equipment occurs patients are transferred to alternative units for their care. Measuring the number of non clinical transfers gives an indication of how well the service is coping with the demands on the service. Since 2010 the number of non-clinical transfers has fallen by 53% so that in 2016 there were just 58 non-clinical transfers compared to 121 in 2010. The improvements made in the safe transfer of patients have also been maintained with 76% of transfers in 2016 graded as excellent or good.

• **Critical care outreach**

Early identification of patients whose condition is deteriorating can sometimes prevent the need for admission to critical care by offering early intervention. Where patients do require critical care, early identification and intervention can prevent further deterioration, reduce length of stay and possibly prevent death. The introduction of critical care outreach services as a response to the NICE CG (50) Guidelines on Acutely Ill Adults in Hospital has started to show benefits in terms of reduced inappropriate admissions through early recognition, structured assessment and treatment, and on-going education for ward nursing and junior medical staff.

Almost all acute hospitals in Wales now provide a critical care outreach service or an acute intervention team, enabling patients who are deteriorating to receive speedy clinical input to stabilise them and, where needed, move them into a critical care bed. These services also support patients stepping down to ward care.

• **Post critical care follow up clinics**

Follow up clinics allow patients and carers the opportunity to give feedback regarding their experience of the care and treatment they received whilst in the critical care unit. They enable the patient and carers to discuss any ongoing physical, psychological or emotional issues the patient may be experiencing that potentially require referral for ongoing treatment and management of the condition. Where relevant, information can be used to effect changes in practice and ultimately improve the service given to future patients and carers.

A pilot project was run in four health boards to evaluate the benefits of following up patients who were ventilated during their stay in critical care. The pilot was a huge success in the four health boards, demonstrating extremely high patient satisfaction and an increase in the ability to address patients’ concerns. Previously patients may not have had the opportunity or thought to discuss with another healthcare professional after their critical care stay. As a result of the pilot, recommendations have been made to source continued funding for the clinics to improve overall health outcomes for patients following admission to critical care.

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2 Transfer figures supplied by critical care network not CCMDS
• **Pre-hospital critical and emergency care**

The Emergency Medical Retrieval and Transfer Service (EMRTS Cymru), more commonly known as the ‘Welsh Flying Medics’, provides pioneering pre-hospital critical and emergency medical care across Wales. EMRTS Cymru, which effectively takes the emergency room to the patients, is made up of Welsh Government-funded NHS consultants and critical care practitioners who are able to deliver innovative emergency treatments usually not available outside the hospital environment. The Wales Air Ambulance raises £6.5 million every year from charitable donations to keep the helicopters flying.

An independent evaluation indicates that the service is having a positive impact on critical care in Wales:

- Shortening of the time it takes for somebody who is critically ill to receive consultant-led treatment.
- More people in Wales, in rural and urban areas, now have equal access to timely consultant-led treatment during an emergency incident.
- Relieving some pressure on frontline NHS emergency services.
- The development of skills and knowledge in critical and emergency care for NHS Wales employees, both during emergency incidents and by organising regular training opportunities.

• **Peer review**

Peer review of critical care services not only help teams demonstrate that they are compliant with various national standards such as the Health and Care Standards Framework but also progress against implementation of the objectives in the Delivery Plan for the Critically Ill. Peer review of the quality of healthcare to support and inform the planning and delivery of services has strong clinical support and has proven to be an effective and inexpensive way of evaluating services, making targeted improvements and sharing best practice. The critical care peer review three year rolling programme which was successfully initiated in 2016 will be co-ordinated by the critical care and trauma network.

• **National Carers Survey**

All health boards are obtaining feedback on quality of care from patient relatives and loved ones using the National Carers Survey. Responses have been overwhelmingly positive. Where problems or issues have arisen, they have nearly always related to the quality of accommodation for relatives. Unit staff have developed action plans to address any shortcomings identified.

Health boards have also undertaken other methods to obtain feedback. For example Aneurin Bevan University Health Board, Betsi Cadwaladr University Health Board and Cardiff and Vale University Health Board use patient diaries. Aneurin Bevan University Health Board also participated in the FREE (Family Reported Experiences Evaluation) Study on the Royal Gwent Hospital site. This study obtained feedback from family members who had a relative admitted into Critical Care. The study looked at a number of parameters including communication, concern and caring for
patients, treatment – symptom management, consideration for family member, organisation of care environment etc. Feedback was very positive but a number of areas for improvement have been identified e.g. family room facilities.

Areas of focus

Whilst, the last 12 months has seen some progress in improving care for patients requiring critical care in Wales, there are a number of areas within the service where there are considerable delivery pressures and progress in some of these areas has not been as effective as we would have liked.

- **Delayed transfers of care**

When a patient is declared fit for discharge from critical care wards are allocated four hours in which to make the necessary arrangements to transfer the patient. Any time over this four hour period is considered a delayed transfer of care (DTOC) and can have serious implications in terms of bed availability and costs. In 2016-17 53% of discharges had a delayed transfer of care (4,880 episodes).

Health boards are expected to reduce DTOC levels by 10% per quarter until no more than 5% of bed occupancy is lost to DTOC. No health board has managed to achieve this target.

![Graph showing hours lost to critical care delayed transfer of care by financial year - Wales](image)

Although not at the pace set out by the new measure, Cwm Taf University Health Board and Hywel Dda University Health Board have seen reductions in their levels of DTOC. Abertawe Bro Morgannwg University Health Board has begun to make reductions but levels remain higher than when the measure was initially introduced. Aneurin Bevan University Health Board and Cardiff and Vale University Health Board are both seeing an increase in their levels of DTOC.

In 2016-17, the number of bed hours lost to DTOC was 155,943 which equates to 17.8 beds a year. All health boards need to ensure that the most effective and efficient use of the service is made and addressing DTOC levels is a priority to improve efficiencies in this area.

- **Limited capacity, high demand and high occupancy levels**

Critical care units across Wales are under enormous pressure from high demand and limited capacity. Wales has one of the lowest numbers of critical care beds per...
100,000 capita population within Europe at just 5.9; the European average is 11.5 beds.

The Intensive Care Society (ICS) states that critical care units should run at occupancy of 65-70%. Occupancies higher than this are known to lead to cancelled operations, patients being cared for in theatre recovery areas, non-clinical transfers and delayed admissions, each of which have their own impact on outcomes for patients. In the last year some units have seen percentage bed occupancy above 100%, considerably above the recommended rate.

- **Tackling variation in transfer grades**

While the transfer rating in Wales overall is good with 76.5% graded as excellent or good, there is significant variation across health boards. In 2016, transfer grades ranged from 61% excellent or good at Hywel Dda University Health Board to 92% at Betsi Cadwaladr University Health Board. Continued work with the critical care network to improve training opportunities and sharing of good practice will help to address this.

- **Clinical information system for critical care**

The critically ill implementation group prioritised the procurement and installation of digital clinical information system for critical care units in Wales as the first step towards the development of telehealth in critical care in Wales. To date, there has been little progress due to difficulties gaining support from key agencies to commence procurement. Urgent work is now underway to move the project forward.
In 2016–17 there were 9,280 admissions to critical care. Just under 3/4 of all admissions were unplanned.

84% of admissions are discharged alive. The average length of stay for patients is 5.5 days.

1.1% of admissions were entirely for lower level care. 10% of days in critical care were for lower level care (not level 2 or 3 care).

53% of all admissions had a delayed discharge*. 6.1% of admissions discharged out of hours.

155,943 hours lost to delayed transfer of care* (Equivalent to 17.8 additional beds per year).

The number of premature discharges has fallen by 58% since 2010–11. In the last 10 years the number of re-admissions within 48 hours of discharge has fallen by 58%.

In 2016 non-clinical transfers had fallen by 53% since 2010. In 2016 76.5% of transfers were graded as excellent or good.

* Delayed discharge/delayed transfer of care is waiting more than 4 hours after being declared ready to be discharged.